

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

MOTOROLA, Inc., GMP/WIRELESS)	
MEDICINE, Inc.,)	
)	
Plaintiffs,)	
)	No. 04 C 5944
v.)	
)	
NONIN MEDICAL, Inc.,)	
)	
Defendant.)	
)	

MEMORANDUM OPINION AND ORDER

On July 13, 2007, plaintiffs Motorola Inc., and GMP/Wireless Medicine, Inc. ("GMP"), respectively the owner and exclusive licensee of United States Patent Nos. 6,289,238 (the "'238 patent") and 7,215,991 (the "'991 patent"), filed a second amended complaint alleging infringement of those patents by defendant Nonin Medical, Inc. ("Nonin"). Both patents are titled "Wireless Medical Diagnosis and Monitoring Equipment," and they share a specification. As their title suggests, the patents relate generally to wireless medical systems used to monitor body functions in a patient, such as electrical activity in the brain or heart, body temperature, pulse, or oxygen saturation levels in the blood.

GMP and Nonin each assert that certain claim terms require judicial construction pursuant to *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995). With respect to some

terms, the parties have offered competing constructions. With respect to others, one party has proposed a construction while the other maintains that the terms are readily understandable as written and need not be construed.

Based on the parties' briefs, oral argument, and my review of the cited evidence, I resolve the parties' disputes as follows.¹

I.

Markman's holding that claim construction is a matter of law for the court to resolve does not require trial judges to "repeat or restate every claim term." *U.S. Surgical Corp., v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997). Instead, judicial construction is reserved for "when the meaning or scope of technical terms and words of art is unclear and in dispute." *Eli Lilly and Co., v. Aradigm Corp.*, 376 F3d 1352, 1360 (Fed. Cir. 2004)(quoting *U.S. Surgical*, at 1568).

The starting point for claim construction is always the language of the claims themselves. *Vitronics Corp. v. Conceptiontronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)("the words of the claims themselves...define the scope of the patented invention"). Claim terms "are generally given their ordinary and

¹In several instances, the parties have grouped several related terms together and propose constructions that would apply to each of the related terms. I agree that this is a useful way to construe the disputed claims, and, unless stated otherwise, these constructions are intended to apply to all of the related terms in a particular group.

customary meaning," *id.*, which is to say, the meaning those words would have to a person of ordinary skill in the art at the time of the patent's effective filing date.² *Phillips v. AWH Corp.*, 415 F.3d 1303 at 1313.

Because a person of skill in the art is deemed to read the claims in the context of the patent as a whole, while the claims define the invention, the specification "is always highly relevant to the claim construction analysis." *Phillips*, at 1314 (*quoting Vitronics*, at 1582). Nevertheless, "limitations from the specification are not to be read into the claims." *Golight, Inc., v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1331 (Fed. Cir. 2004)(citations omitted). Although "there is sometimes a fine line between reading a claim in light of the specification, and reading a limitation into the claim from the specification," *Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186-87 (Fed.Cir. 1998), this line can generally be discerned by maintaining a focus on how a person of skill in the art would understand the claim terms. *Phillips*, at 1323.

In addition to the patent itself, I may consider any portions of the prosecution history that are in evidence for claim construction. *Markman*, 52 F.3d at 980. The claims, the specification, and the prosecution history are the "intrinsic"

²For the sake of economy, at times I refer simply to a person of "skill in the art." In each instance, I mean a person of ordinary skill in the art at the relevant time.

evidence that form the most reliable basis from which to ascertain the meaning of claim terms. See *Phillips*, at 1313-14.

"Extrinsic" evidence, including dictionaries, treatises, and inventor testimony, can also shed light on the meaning of claim terms. In particular, "dictionaries, and especially technical dictionaries...have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art." *Phillips*, 415 F.3d at 1318 (citing *Teleflex, Inc., v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002)). Although extrinsic evidence as a whole is considerably less reliable than intrinsic evidence for determining "the legally operative meaning of claim language," *Phillips*, at 1317 (citation omitted), I may consult and rely on dictionary definitions when construing claim terms, "so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." *Phillips*, at 1322-23 (quoting *Vitronics*, 90 F.3d at 1584 n. 6).

With these principles in mind, I turn to the disputed claim terms.

1. "Electrode"

I conclude that "electrode" means, as GMP asserts, "a collection of electronic components including an electrical conductor." This construction defines "electrode" with reference to the structural and functional characteristics associated with

the device. This understanding of the term is supported by the specification and is consistent with technical definitions of "electrode." *E.g., McGraw Hill Dictionary of Scientific and Technical Terms* 5th ed. (1994) ("1. An electric conductor through which an electric current enters or leaves a medium..."); *The American Heritage® Stedman's Medical Dictionary*. Houghton Mifflin Company. <http://dictionary.reference.com/browse/electrode> (accessed: December 01, 2008)("1. A solid electric conductor through which an electric current enters or leaves an electrolytic cell or other medium. 2. A collector or emitter of electric charge or of electric-charge carriers, as in a semiconducting device.")

Defendant contends that "electrode" should be defined more narrowly as "a self-contained device with no exposed wires or cables" and seeks to limit the term so that "electrode does not include a system in which the signals of individual sensors are transmitted via cable to a separate emitter unit for wireless transmission to an evaluator station." This construction is not supported by the weight of the intrinsic and extrinsic evidence.

Nowhere do the claims themselves refer to a "wireless electrode" or describe an "electrode" as a device without exposed wires or cables. Defendant asserts that its proposed construction is nevertheless compelled by the specification and prosecution history, which, according to defendant, demonstrate that the

patentees affirmatively disclaimed devices with exposed wires or cables.

Defendant first points to the use of the phrase "wireless electrodes" in the specification. At the outset, I note that the very presence of the modifier "wireless" strongly implies that the term "electrode" as used in the patent does not inherently mean a wireless device. See *Phillips*, at 1314 ("the claim in this case refers to "steel baffles," which strongly implies that the term "baffles" does not inherently mean objects made of steel"). Defendant therefore must offer compelling evidence that the phrase "wireless electrode" in the specification reveals "a special definition given to ["electrode"] by the patentee that differs from the meaning it would otherwise possess." *Id.*, at 1316.

Defendant argues that limiting the scope of "electrode" to a device with no external wires does not improperly import limitations from the specification because the phrase "wireless electrode" appears prominently in the specification (in the abstract and in what defendant calls "the very first paragraph to substantively describe the invention"), as well as in sentences that allegedly define explicitly what "the invention is." In support of the latter point, defendant cites *Honeywell Int'l v. ITT Industries, Inc.*, 452 F.3d 1312, 1318 (Fed. Cir. 2006), for the proposition that where a patentee describes exactly what "the invention" is in the specification, claim terms may not be

construed in a way that conflicts with the definition of "the invention" as described in those statements.

Defendant's arguments are unavailing. First, defendant offers no authority for the proposition that the specific location of a term in the specification--whether it appears in the abstract, the first substantive paragraph, or elsewhere--is material to claim construction. Moreover, *Honeywell* offers little support for defendant's construction on the facts presented here. In *Honeywell*, the phrase "the invention" was used consistently throughout the specification in relation to a particular device (a fuel filter in that case). The patents asserted in this case, by contrast, use phrases like "the invention" or "this invention" in a much broader variety of contexts.

Finally, both intrinsic and extrinsic evidence support GMP's argument that "wireless" as used in the specification refers not to the electrode device, but to the mode of data transmission. For example, claim 1 of the '238 patent recites:

A medical system for acquiring measured data, in particular for monitoring body functions, comprising:
at least one evaluation station having at least one receiver
and at least one transmitter **for wireless digital data transmission...**

(emphasis added).³

³This understanding is also consistent with defendant's use of the term "wireless" in promotional materials that describe its own device, which clearly contains exposed wires. While this extrinsic evidence carries little weight, it nevertheless offers additional support for GMP's position that "wireless" as used in the art may

Defendant next argues that because all of the embodiments described or depicted in the specification show a self-contained unit with no exposed wires or cables, the claims cannot be construed to cover an electrode with exposed wires or cables. Defendant is correct that where there is "nothing in the context to indicate that the patentee contemplated any alternative embodiment to the one presented," *Phillips*, at 1323, it is appropriate to limit the claim terms to the disclosed embodiment. The Federal Circuit has admonished, however, that "although the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments." *Id.* (citation omitted).

Defendant relies heavily on a portion of the specification containing the text: "Ideally, all electronic components of the electrodes...are designed as integrated circuits and realized on a single chip (electrode chip)." '238 pat. At 9:13-17. Further discussion of embodiments corresponding to that description, however, refers to them as "typical exemplified embodiments," demonstrating that they are intended to be exemplary rather than exclusive embodiments. In fact, the specification is peppered with phrases that reinforce that interpretation. For instance, the discussion of some embodiments includes phrases such as, "without limiting the general idea of the invention..." '238 patent at

refer to a mode of transmission, rather than a device.

18:34-35, and "without limiting the basic idea of the invention... ." '238 patent at 22:45-57. This is not language that suggests an intent to confine the claims to the specific embodiments taught.

Defendant next argues that "electrode" as used in the asserted claims excludes devices with exposed wires or cables because the specification distinguishes prior art containing electrodes that are connected to a separate "emitter unit" with wires. '238 patent at 2:36-47. But the patentees distinguished that art not based on the presence or absence of wires, but rather on the earlier invention's excessive power requirements and inconvenient size. The text immediately following the portion of the specification defendant cites reads:

However, the above-mentioned methods have the drawback that the emitter unit is supplied with current via batteries. The batteries have to assure not only the power supply for the data recording and data processing, but also for the data transmission via radio transmission. Therefore, the batteries have to be replaced frequently, which is connected with drawbacks especially in long-term monitoring. Since the emitter units are relatively large, said methods again limit the freedom of movement of the patient.

'238 patent at 2:47-56. Thus, the distinction drawn by the patentees does not constitute the kind of clear disclaimer or disavowal of wire-containing devices that would warrant excluding such devices from the scope of the claims. See *Abbott Laboratories v. Baxter Pharmaceutical Products, Inc.*, 334 F.3d 1274, 1278-79 (Fed. Cir. 2003) ("only a clear disavowal of subject matter divests claims of broader scope." *Id.*, at 1279).

Defendant further contends that unless "electrode" is construed as a device containing no exposed wires or cables, it does not solve all of the problems identified in the patent. But as *Phillips* instructs, "the fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Phillips*, 415 F.3d at 1327 (citing *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 908 (Fed. Cir. 2004)). This argument thus fails to support defendant's proposed construction.

Finally, defendant contends that the patentees clearly intended to invent a system with an electrode that was not previously known. But the invention does not purport to be a novel electrode; on its face, it purports to be novel medical monitoring equipment that uses electrodes for wireless communication of data.

Mindful of the necessary focus on how a person of skill in the art would understand the term "electrode" as used in the claims, I consider the following question, modeled on the one posed in *Phillips*, 415 F.3d at 1327, useful to my analysis: would a person of ordinary skill in the art, reading the specification and claims as a whole, understand the word "electrode" as used in the claims to be an "electrode" only if it is a self-contained device with no exposed wires or cables, and not an "electrode" if it contains exposed wires or cables, or if it includes a system in which the

signals of individual sensors are transmitted via cable to a separate emitter unit for wireless transmission? In light of the foregoing considerations, I conclude that the answer is no.

For the reasons discussed above, I construe "electrode" as "a collection of electronic components including an electrical conductor."

2. "coupled to"

GMP asserts that the ordinary meaning of the term "coupled to" is "linked," "joined," or "connected," and that the term is used in the claims in accordance with its ordinary meaning. Defendant does not dispute the ordinary meaning of the term, but asserts that an alternative construction--"connected with means other than by exposed cables or wires or the equivalent"--should be adopted instead. Defendant argues that a divergence from the term's ordinary meaning is warranted in context. The contextual argument, however, is essentially the same as defendant's argument for its construction of "electrode" (indeed, defendant addresses the terms together in its reply memorandum), and it fails for the same reasons.

In short, defendant contends that the patentees used the phrase "coupled to" in prosecuting the '991 patent as the functional equivalent of "electrode," and that they eliminated the word "electrode" to broaden the scope of the '238 claims and "recapture" previously disavowed embodiments (i.e., embodiments in

which electrodes contain exposed wires or cables). As discussed above, however, I find that the patentees did not disavow embodiments with exposed wires or cables when prosecuting the '238 claims. Because defendant makes no independent argument for adopting a definition inconsistent with the ordinary meaning of "coupled to," and does not dispute that the ordinary meaning of that term is readily understood, I see no reason to construe the term "coupled to." This term shall have its ordinary meaning as understood by one of skill in the art.

3. "error correction and diagnosis unit" and "error correction unit"

GMP asserts that these terms are readily understood by persons of ordinary skill in the art and need not be construed. Citing two technical dictionaries, GMP argues that within the field of the invention, "error correction" is ordinarily understood as follows: "[a] system that detects and inherently provides correction for errors caused by transmission equipment or facilities," Donald D. Spencer, *Computer Dictionary* 4th Ed. 1993 p. 132);⁴ "a method used to correct erroneous data produced during data transmission,

⁴Although the citation in its brief is erroneous (citing to the Spencer rather than to the IBM dictionary), GMP also asserts a common definition for "error detection." Because "error detection" is not a term for which the parties seek construction, I presume GMP discusses "detection" as a synonym for "diagnosis," which term is at issue. It is not clear to me that those terms are interchangeable, but defendant has not raised this point, and in any event, it is immaterial to my ruling.

transfer, or storage," *IBM Dictionary of Computing*, International Business Machines Corp. 10th ed., August 1993 p. 244).

Defendant urges me to construe these terms to mean "a unit that uses redundant information to correct errors in the digital data," with the additional proviso, "does not include requesting a repeat transmission of the data." Defendant cites to two portions of the specification as intrinsic support for its construction. The first is an excerpt that reads:

For detecting and minimizing transmission errors, [provision] is made in the evaluator station (7) for an error diagnosis and correction unit (7d). The latter uses redundant information in the transmission in order to be capable of eliminating errors.

'238 patent at 19:20-24. As noted previously, it is generally improper to read limitations from the specification into the claims, *Phillips*, 415 F.3d at 1323. Although the cited excerpt from the specification indeed discloses the use of redundant information for error correction, that text alone is an insufficient basis for restricting the claim scope to exclude other means of error correction. Defendant offer no significant support for its proposed limitation.⁵

⁵Defendant also argues that the deposition testimony of one of the inventors supports limiting the claim scope in the way defendant proposes; but given the great lengths to which defendant went in reply to persuade me of the negligible value of inventor testimony, I give little weight to the evidence defendant cites here.

Defendant's request that these terms be further construed to exclude requesting a repeat transmission of the same data is similarly without support. Defendant points to a portion of the specification in which the error correction unit is described to function in such a way that "a repeat request for repeating the data transmission can be omitted." '238 patent at 17:23-25. As GMP correctly observes, however, the error correction method described in the cited excerpt is explicitly labeled an "example," leaving the scope of the claims open. Indeed, the asserted patents also explicitly identify repeated data transmission as another form of error correction contemplated by the invention. '238 patent at 3:51-54 ("By transmitting redundant information in the data emitted by the electrodes, the evaluator station is capable of recognizing errors and request a renewed transmission of the data.").

For the foregoing reasons, I decline to construe the terms "error correction and diagnosis unit" and "error correction unit." These terms shall have their ordinary meaning as understood by one of skill in the art.

4. "at least one receiver operable to receive information through wireless communication"

GMP asserts that construction of this term is unnecessary. Defendant seeks to have the term construed as "a receiver capable of receiving data from the evaluator station and detecting errors in that received data." Defendant's construction is meritless. The claims that incorporate this term do not address error

correction or detection at all, but are directed towards another aspect of the invention.

Defendant cites nothing in either the claims or the specification that would support reading a requirement for detecting and correcting errors into claims not directed to those functions. Instead, defendant makes the sweeping argument that because "a fundamental requirement of the invention" is that the system be capable of detecting errors in the data sent by the evaluator station to the electrode, the receiver must be capable of detecting errors in the received data. Defendant does not identify anything in the claims or specification to support this conclusion, but relies entirely on an argument made during prosecution of an earlier patent for the invention (not asserted in this litigation) that distinguished then-pending claims--which recited an "error diagnosis and correction unit"--from prior art that did not include error detection. The error diagnosis language relied upon in the patentee's earlier argument is absent, however, from at least some of the asserted claims containing this term.

Taken to its logical conclusion, defendant's argument would require all claims in this family of patents to be construed to include error diagnosis, simply because that limitation was the basis for differentiating a claim in an earlier patent for the invention from the prior art. Defendant cites no authority for such a far-reaching result.

In any event, I credit GMP's argument that to construe the term as defendant seeks would risk violating the principle of claim differentiation. Claim 1 of the '991 patent contains the term at issue, but, as noted above, that claim makes no mention of error detection. Claim 18 of the '991 patent depends from claim 1, and "further comprises *an error correction unit operable to perform error correction* on the information received by the at least one receiver." (Emphasis added) "The presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim." *Phillips*, at 1314-1315. Defendant has offered no basis to overcome that presumption here.

For the foregoing reasons, I decline to construe the term "at least one receiver operable to receive information through wireless communication." These terms shall have their ordinary meaning as understood by one of skill in the art.

5. "manipulate the data," "manipulate the digital data," and "manipulate the first data"⁶

The parties offer competing constructions for these terms. GMP asks me to construe the terms to mean "change the form⁷ of the data

⁶I agree with GMP that it is unnecessary to include "transmitted" in the terms to be construed.

⁷In its opening brief, GMP proposed the construction "change the *format* of the data..." (emphasis added) The materials GMP presented at oral argument, however, substitute the phrase "change the form" for "change the format," and I assume that "form" is what GMP intended.

(e.g. by changing the format of the data or by increasing redundant information in the data) as opposed to control the data."

Defendant seeks the construction "in response to transmission errors, cause a change in the format of the digital data," with the additional proviso that "this does not include requesting repeat transmission of the data." Neither of these proposed constructions is wholly satisfactory.

Defendant's construction seeks to incorporate two limitations not recited in the claims. Its arguments for defining the term to include "in response to transmission errors" are based on a strained and unnatural reading of language in the claims and specification and are unpersuasive.⁸

Defendant's argument for excluding requests for repeat transmissions also fails. Defendant states that only one paragraph

⁸For example, defendant argues that the patentees "tied manipulation of the data directly to the error correction function of the invention," citing the following portion of claim 1 of the '238 patent:

at least one error diagnosis and correction unit coupled to at least one of said electrode and evaluation station for detecting errors in the received data;

whereby the data transmitted by said evaluation station to said electrode can manipulate the data transmitted by said electrode to the evaluation stations.

What defendant's citation fails to show, however, is that the first cited clause is preceded by three others, which are directed to functions other than error correction. The independent clauses are separated by semi-colons and collectively culminate in the final, "whereby" clause. A natural reading of this claim suggests no special link between error correction and manipulation of data.

in the entire patent discusses "manipulation of the data," argues that in that paragraph, "manipulation of the data" is an alternative to requests for a renewed transmission, and concludes that the functions are mutually exclusive. While it is possible to read the cited paragraph in the manner defendant asserts, the text does not unambiguously contrast "manipulate...the data" with requests for renewed data transmissions. In view of the presumption against reading limitations from the specification into the claims, the cited text alone is an insufficient basis for doing so here.

GMP's proposed construction, while not ideal, provides a useful starting point. The parties appear to agree that "manipulate the data" means "change the form of the data." The parenthetical GMP proposes following that portion of the term strikes me as more confusing than helpful, however. In particular, one of the examples in the parenthetical--"change the format of the data"--is itself a disputed term for construction, as discussed below in relation to the term "change the format of the digital data." In its discussion of that term, GMP argues persuasively (and defendant does not dispute) that within the field of the invention, the ordinary meaning of "change the format" of data is "change the form or arrangement" of the data. GMP's parenthetical example suggests that that meaning should extend to the terms to be construed here.

The remainder of GMP's proposal essentially differentiates the "manipulate" from "control," and defendant does not appear to object to this distinction.

For the foregoing reasons, I conclude that "manipulate the data," "manipulate the digital data," and "manipulate the first data" means "change the form or arrangement of the data, as opposed to control the data."

6. "control the data transmitted," "control operation of the transmitter," "control the transmitter," and "control...the first data transmitted"

GMP proposes the construction, "direct the transmission of data and/or the manner in which data is transmitted (e.g., by changing the transmission power or the transmission channel (e.g., frequency)) as opposed to manipulate the data." Defendant proposes, "in response to transmission errors, cause a change in the manner in which the data is transmitted, such as increasing the power or changing the frequency," with the additional qualification that "this does not include requesting a repeat transmission of the data." I conclude that these terms mean "direct the transmission of data and/or the manner in which data is transmitted, as opposed to manipulate the data."

The preceding analysis of "manipulate the data" and related terms is generally applicable to these terms as well. Defendant's proposed construction suffers from the same defects as noted previously. In addition, I agree with GMP that the ordinary

meaning of "control" is broader than "cause a change," and I find that defendant has not asserted an adequate basis for narrowing the scope of the term.

GMP's proposed construction appears generally uncontroversial, but I again find the parenthetical superfluous. I therefore conclude that these terms mean "direct the transmission of data and/or the manner in which data is transmitted, as opposed to manipulate the data."

7. "formatting data operable to change a format for transmission of the digital data," "change the format of the digital data,"⁹

Defendant asserts, and GMP does not dispute, that these terms are equivalent to "manipulate the data" and related terms, discussed in section 5, above. In addition, defendant seeks to limit "formatting data" to "information transmitted by the evaluation station to the electrode." GMP acknowledges that that limitation may accurately reflect the meaning of the term in one or more claims of the patents in suit, but argues that it may not be correct with respect to every claim, and that there is no basis for incorporating this limitation unnecessarily. Because defendant has not offered any basis for including the limitation, I decline to do so.

⁹Defendant urges me to apply its construction to the related phrase "the evaluator station is operable to change the format of the digital data transmitted." Because I adopt a construction substantially similar to GMP's, however, the construction is limited to the terms for which GMP seeks construction.

For these reasons and those discussed in section 5, I construe these terms to mean, respectively, "data that is used to change the form or arrangement of data," and "change the form or arrangement of the data, as opposed to control the data."

8. "evaluator station," and "evaluation station"

GMP proposes the construction "a device with an identified collection of components that detects or determines a property of data," while defendant asserts "a device that evaluates and processes the received sensor data." GMP's construction is correct.

As with its proposed construction of "electrode," GMP defines this term with reference to structural components of the device, then relies on definitions found in technical dictionaries to characterize their collective function. Defendant does not dispute these definitions but objects that GMP's proposal unnecessarily complicates the terms because the term "evaluate" is no less clear than the terms "detect" and "determine." The term "evaluate" is not the term to be construed, however, but rather "evaluator station" and "evaluation station." I find that GMP's proposed construction, as a whole, is consistent with the specification and is generally helpful to understanding the meaning of these terms as they are understood by one of skill in the art.

Defendant further argues that a narrower construction is mandated by language in the claims and the specification.

Defendant first contends that the surrounding claim language demonstrates that the evaluation station must "process received sensor data." But the term "process" is nowhere to be found in the claims, nor does defendant explain why the terms that are present in the claims should have the meaning "process."

The portion of the specification to which defendant cites similarly lacks either an explicit or an implicit reference to processing. Defendant's proposed construction is simply without support in the record.

For these reasons, I construe these terms to mean "a device with an identified collection of components that detects or determines a property of data."

9. "change an amount of redundancy in the digital data"

GMP asserts that this term means, "change an amount of information in the data unrelated to the essential information in the data." Defendant objects that this construction "raises more questions than it answers," and asserts that these claim terms do not require construction.

It is true that GMP's proposed definition is confusing. The term "essential" may refer (as GMP presumably intends) to the information necessary to express a substantive message. In the context of the patent, the substantive message consists of electric, physical, chemical, or biological quantities of a patient. But information unrelated to the substantive message but

nevertheless required for the message to be transmitted accurately may also be understood as "essential." Thus, GMP's use of "essential" in its proposed construction is problematic.

Furthermore, the parties are in apparent agreement that one of ordinary skill in the art would understand "redundancy" as referring to information used specifically for error detection, and that the claims use that term consistently with its ordinary meaning. I therefore agree with defendant that this term does not require judicial construction.

III.

For the foregoing reasons, the terms submitted by the parties for judicial construction will have the meanings set forth above.

ENTER ORDER:

A handwritten signature in cursive script, reading "Elaine E. Bucklo". The signature is written in dark ink and is positioned above a horizontal line.

Elaine E. Bucklo

United States District Judge

Dated: December 8, 2008